

Application No.: 09/940,349

Docket No.: JCLA7911

**REMARKS****Present Status of the Application**

The Office Action mailed on April 7, 2005, rejected all claims 1-3. Specifically, the Office Action rejected claims 1-3 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. In addition, claims 1-3 were rejected under 35 U.S.C. 102(b) as being anticipated by Bradshaw et al. (U.S. Pat. No. 6,101,157). Applicants do not agree the rejections, and reconsideration of those claims is respectfully requested.

**Discussion of Office Action Rejections****I. Rejection under 35 U.S.C. 112**

Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The Examiner states that amended claim language cannot be read from the originally filed specification and no support can be found in the specification or the drawing.

In response, Applicants respectfully submit that the amended claim language is indeed supported by the originally filed specification. For example, the "correction offset signals" correspond to "the correction offset voltage of the addition signal Vosadd" and "the correction offset voltage of the subtraction signal Vossup", referring to paragraphs [0039] and [0042].

Furthermore, from equations (4) and (6), the correction offset voltages Vosadd, Vossup are not function of the gain  $G$ , i.e., not affected by the switch operation of the gain  $G$  of amplifiers. Therefore, the amended claim language "the correction offset signals are independent to gains of the amplifiers" is fully supported by the originally filed specification.

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## II. Rejection under 35 U.S.C. 102

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Bradshaw et al. (U.S. Pat. No. 6,101,157). The Office Action alleges that Bradshaw et al. has disclosed that the correction offset signals are independent to gains of the amplifiers (See col. 5, line 64 to col. 6, lines 3; col. 8, lines 55-63; Fig. 2, ref#36, 37), referring to the Office Action, page 3. Applicants respectfully disagree this interpretation for at least the following reasons.

Bradshaw provides a method and an apparatus for the focus control capable of eliminating a fluctuation of an optimum gain of a focus serve loop. According to Bradshaw, in order to address level fluctuations of the reproduction RF signal and the focus error signal due to the different light reflectance of recording surfaces, the gain of the amplifier is stepped up and the focus sweep process is repeated to set an optimum gain until the levels of the RF signal and the focus error signal, that are obtained when the focus sweep is performed before the reproduction, cross the threshold values.

Bradshaw uses the controller 9 to outputs gain control signals GCc, GCr and GCf to respectively correct the gains of the amplifiers 36-37, 4-6, and ZCP detecting circuit 7 (col. 5, lines 64-67, col. 6, lines 1-3). Namely, the gain control signal for varying the gain is supplied to the adding circuits 36, 37. According to the Bradshaw reference, it needs to perform an offset adjustment separately after the gain of the amplifiers (variable gain type adders) 36-37, 38-39, or 4 and 6 is optimized by a gain control signal (such as GCc, GCr, GCf).

In the description of col. 5, line 64 to col. 6, lines 3, the Bradshaw reference teaches that a construction to commonly control the gain of the adding circuits 36, 37 is used and the same gain control signal GCc is supplied to control input terminals of both adding circuits. In this paragraph cited by the Examiner, *no teachings of "the correction offset signals are independent*

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*to gains of the amplifiers" is provided.* Bradshaw only teaches that the gain is varied to control the gain control signal GCc.

Namely, according to the Bradshaw reference, the offset adjustment relates to the gain. However, the correction offset signal recited in claims of the present invention does not relate to the gain.

In addition, according to the description of col. 8, lines 55-63 of the Bradshaw reference, when the setting of the gain control signal in step S7, S8, S10 or S11 is finished, to correct an offset change in association with the gain setting, the controller 9 executes an offset adjustment to the amplifier or adder. Therefore, *it is very clear that the offset is changed according to the setting of the gain control signal.* Namely, the offset is related to the gain. In the Bradshaw reference, Bradshaw discloses a method to set the gain control signal to vary the gain, by which the offse can be changed according to the gain, or the gain control signal. Therefore, *the offset of the Bradshaw reference is dependent on the gain.* The Bradshaw reference fails to disclose, teach or suggest that correction offset signal is independent of gain, and therefore, Bradshaw fails to disclose a gain-independent offset correction mechanism.

Furthermore, in response to the Office Action on page 5, second paragraph, the Office Action seems to be confused with the present invention and the cited reference. The present invention claims features that the offset adjustment is not necessary even though the gain is varied. However, in the cited reference, Bradshaw teaches a concept that the offsets can be independently adjusted even though the gain is varied. Therefore, basically, the concepts of the present invention and the Bradshaw reference are completely different.

The present invention discloses that a correction offset signal with a fixed value is previously added to the input of the amplifier, so that the offset is eliminated even though the offset of the amplifier varies due to the gain variation. This concept of the present invention is different from the Bradshaw reference. The "correction offset signal" is not the gain control signal that causes the offset variation of the Bradshaw reference.

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In addition, according to the Bradshaw reference on col. 8, lines 55-63, *after the setting of the gain control signal is finished, an offset adjustment is performed to the amplifiers or the adders in order to compensate the offset variation when the controller 9 executes a gain setting.*

However, according to the Bradshaw disclosure, the controller 9 performs the offset adjustment to the amplifiers or the adders every time the gain is changed. The Bradshaw disclosure fails to disclose a correction offset with a fixed value is previously added to the input of the amplifier as disclosed in the present invention. The prior art cannot achieve an effect that the correction offset voltage is not necessary to be changed even if the gain is varied.

For at least the foregoing reasons, Applicants respectfully submit that independent claim 1 patently defines over the prior art, and should be allowed. For at least the same reasons, dependent claims 2-3 patently define over the prior art as well.

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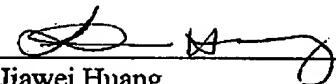
**CONCLUSION**

For at least the foregoing reasons, it is believe that all pending claims 1-3 are in proper condition for allowance. If the Examiner believes that a conference would be of value in expediting the prosecution of this application, he is hereby invited to telephone the undersigned counsel to arrange for such a conference.

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